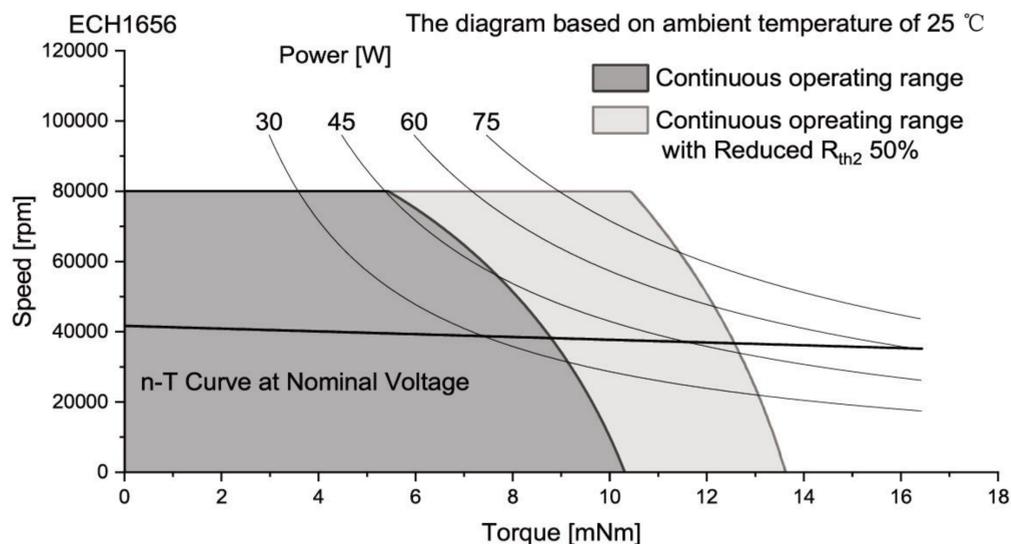


M 1:2

	Sensorless	ECH1656L-...	2440	3040	3640				
	With hall sensor	ECH1656S-...							
Motor data									
Values at nominal voltage									
1	Nominal voltage	V	24	30	36				
2	No load speed	rpm	41670	40775	41311				
3	No load current	mA	103	89	79				
4	Nominal speed	rpm	39238	38438	38898				
5	Nominal torque	mNm	6	6	6				
6	Nominal current	A	1.20	0.95	0.80				
7	Stall torque	mNm	102.81	104.67	102.71				
8	Stall current	A	18.90	15.08	12.50				
9	Max. efficiency	%	85.8	85.2	84.7				
10	Terminal resistance	Ω	1.27	1.99	2.88				
11	Terminal inductance	mH	0.09	0.14	0.2				
12	Torque constant	mNm/A	5.47	6.98	8.27				
13	Speed constant	rpm/V	1746	1367	1155				
14	Speed/torque gradient	rpm/mNm	405	390	402				
15	Mechanical time constant	ms	2.6	2.5	2.6				
16	Rotor inertia	gcm ²	0.61	0.61	0.61				

17	Thermal resistance housing-ambient	16.2 K/W
18	Thermal resistance winding-housing	1.9 K/W
19	Thermal time constant winding	5 s
20	Thermal time constant motor	397 s
21	Ambient temprature	-30...+100°C
22	Max. permissible winding temperature	+150°C
23	Max. permissible speed	80000 rpm
24	Axial play at axial load	<3 N 0 mm >3 N max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	2.5 N
27	Max. force for press fits (static)	44 N
	(static, shaft supported)	1200 N
28	Max. radial loading, 5mm from flange	11 N
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	50 g

Operating Range



Connection

Conection A (Sensor)			PVC
Pin 1	Vhall 3-18 VDC	AWG26	black
Pin 2	Hall sensor HA	AWG26	black
Pin 3	Hall sensor HB	AWG26	black
Pin 4	Hall sensor HC	AWG26	black
Pin 5	GND	AWG26	black
Pin 6	Motor winding MA	AWG26	black
Pin 7	Motor winding MB	AWG26	black
Pin 8	Motor winding MC	AWG26	black
Conector			JST PH2.0-8P
Conection B (Sensorless)			PVC
Pin 1	Motor winding MA	AWG26	yellow
Pin 2	Motor winding MB	AWG26	green
Pin 3	Motor winding MC	AWG26	blue

Configuration

Performance: Customized in the continuous operating range
Ball bearing: Preload
Flange: Standard frange front&back/customize the frange
Shaft: Length/Diameter/Cut face/double shaft/hollow shaft
Leadwire: PVC/Silicon/Teflon/UL No/Dimension/length
Connector: JST/MOLEX/TE